APPENDIX F – DRAFT ENVIRONMENTAL ASSESSMENT COMMENTS AND RESPONSES

This appendix provides specific responses to public comments received on the Draft Environmental Assessment (DEA) for the proposed action. Copies of the comments received can be found in this appendix. Specific comments (addressed below) were numbered on the individual comment letters for ease of comparison.

Letter from ICPRB (dated July 13, 1999)

1. Comment: Use of placement site as spawning/nursery habitat by American shad and other anadromous fish.

Response: These species do not spawn in winter and will not be in this area of the Potomac during the proposed action which will occur between October 1 and February 15. The dredging and placement areas are deep (>17 feet). Deeper areas are less important spawning/nursery habitat than shallow areas (<10 ft).

2. Comment: Environmental costs of additional sediment and nutrients that are going to be re-suspended into the Chesapeake Bay and the Potomac River were inadequately considered in analysis of alternative disposal sites.

Response: An updated sediment and nutrient analysis is included in the Final Environmental Assessment . Nutrient releases due to material placement will be negligible compared to lower Potomac basin loadings (Section 5.3.1). Sediment erosion potential in the deeper area of the Potomac is very low (Section 5.12).

3. Comment: Erosion (re-suspension) of placed materials may contaminate the Potomac Estuary.

Response: Some re-suspension during high flow is likely to happen. The entire upper Potomac River would probably experience some type of re-suspension during high flows. Material, which is now in the channels, would most likely re-suspend during high flows. Since the material will be dredged mechanically, it is anticipated to remain somewhat cohesive when placed into the site. During regular flows this material should consolidate and be acted upon like the material existing at the site. Sediment erosion potential in the deeper area of the Potomac is very low (Section 5.12).

4. Comment: Long-term water quality monitoring station lies within placement area

Response: The station does lie adjacent to the proposed placement area. Placement will be a one time, short-term action. Water quality at the monitoring station may be affected for the first season after placement due to initial material settling and nutrient release. The Corps will also be monitoring water quality post-placement.

5. Comment: Since the sediment characteristics from all sites are "fine-grained" resuspension and loss of cohesion is a concern.

Response: The material being placed has a low moisture content and high plasticity. Consolidation over time is expected and will be enhanced by the dredging/placement method. Materials will be "bucketed" from the channels and released "en-masse" at the placement area. This tends to increase the cohesion from the time of release and decrease the period needed for consolidation as compared to placement by hydraulic pipeline.

6. Comment: Short-nose sturgeon (SNS) conclusions are premature. In addition, American shad and other alosids utilize the area for spawning/nursery habitat.

Response: The Corps has contracted with the U.S. Fish and Wildlife Service (FWS), in cooperation with the National Marine Fisheries Service (NMFS), to conduct studies in the Potomac to determine the presence or absence of sturgeon at this time. Based on a year's worth of data, no sturgeon was caught. Based on this information the FWS and NMFS have agreed to allow placement of dredged material at Gunston Cove deep hole at this time because no SNS have been found after 1 year of study.

Herring habitat potential has been acknowledged in the FEA. The placement site lies within the area of the Potomac that is a well-known nursery area for several species of regional concern. The placement activities will not occur during spawning season and placement will be managed to enhance fisheries habitat as requested by NMFS.

7. Comment: Project is not short-term or small scale.

Response: Scope of project has been reduced to 564,000 cy. This is a relatively small navigation project and will be completed over a single dredging season. The placment site will be used this one time only. It is, therefore, a short-term project.

8. Comment: Many of the studied placement alternatives were poor candidates.

Response: The alternative placement site options were derived from an on-going site identification process that began in the late 1980s (USACE 1988). Upland, open water, and beneficial use sites were identified and evaluated in terms of potential ecological, socioeconomic, cultural/historical impacts, as well as the feasibility of site development.

We always welcome information on potential candidate sites for the dredged material placement, and would appreciate hearing from the commentator about other alternatives.

9. Comment: The Potomac is an American Heritage River. Section 106 Coordination absent.

Response: The Heritage status of the Potomac is addressed in the FEA (Section 4.10). Section 106 coordination is complete and included in FEA.

Letter from James P. Long (dated July 14, 1999)

Comment 1: The impacts of increased boat traffic are not assessed in EA.

Response: Increased boat traffic and potential wake impacts are acknowledged in the FEA (Sections 5.6.1, 5.10, and 5.1.2). The Potomac within the project area is a highly developed urban-suburban area including an international airport, local and interstate highways, and significant commercial/recreational boat traffic. Air quality and noise levels are already elevated and an incremental increase in boat traffic will be negligible comparatively.

Comment 2: Concern over dredging volume and capacity of placement site. Why not use Route 301 bridge area for additional capacity?

Response: The draft EA was written to discuss the worst case of about 970,000 cy of material The Baltimore District has re-engineered the plans and has reduced the amount to be dredged to about 560,000 cy. Depending on funding the amount may be reduced to about 200,00 cubic yards. Gunston Cove can support the proposed capacity. There would be no need to haul material down to the vicinity of the U.S. 301 bridge, as this would add costs. Additionally, NEPA documentation for this area is not complete.

Comment 3: Concern over sediment erosion from placement site and physical/chemical composition compared to existing conditions.

Response: See response to ICPRB Comments #2 and #3. Results of sediment analyses in Appendix E.

Comment 4: Lack of quantification of nutrient release.

Response: See response to ICPRB comment #2.

Comment 5: Project will extend beyond NMFS recommended window (mid-October to mid-December) .

Response: The NMFS recommendation of dredging from Oct to Dec was taken into consideration. The recommendation was based on over wintering fish and the placement of material when the water is highly oxygenated. An over wintering study was performed (Section 4.6.1) and the data shows that the fish over winter on the side slopes and not on the bottom. Additional studies while monitoring for sturgeon have shown that over wintering fish would not be a problem during placement. The study showed water at Gunston deep hole to be highly oxygenated during the winter and also oxygenated during the summer. NMFS has been informed that the window for dredging and placement has been determined to be from Oct to mid Feb and has not objected. MDE has agreed to the dredging window in their Section 401WQ certification of the project (Appendix B).

Comment 6: Absent Maps; no Map 10

Response: Concur. There is no Map 10.

Comment 7: Impacts analysis on benthics is misleading/incomplete

Response: Characterization of and potential impacts to the benthics of the placement area are included in Sections 4.6.2 and 5.6.2. The navigation channels would be expected to have a similar benthic community as those found in the deep areas of the placement site. MD DNR was among the agencies apprised of the project (in 1998) provided with the DEA (June 1999) but has not indicated a potential for mussel presence within the project area. Virginia Department of Conservation and Recreation indicated no heritage species in the vicinity of the Mattawoman or Alexandria dredge sites (in this appendix).

Comment 8: Sediment testing was not conducted.

Response: Several analyses of sediments have been conducted (Appendix E).

Alex Winter: Letters of July 16 and July 19, 1999

Comment 1: Making decision on project made before completion of impact assessment and public review process required by NEPA.

Response: The USACE completely adheres to the NEPA process, including evaluation of project impacts, agency coordination, public outreach, and consideration of public comments. No decision was made prior to the release of the DEA or end of the public comment period. All public comments were considered prior to any decision making. Upon consideration of public comments the Baltimore District determined that that the proposed project would result in no significant impacts to the human and natural environment.

Comment 2: Potential impacts to Patapsco aquifer

Response: A detailed analysis of the potential impacts to the Potomac group aquifer system is included in the FEA (Sections 4.3.2 and 5.3.2 and Appendix D).

Letter from Regional Environmental Organizations (dated July 16, 1999)

Comment 1: American Heritage designation of Potomac River

Response: See Response to ICPRB Comment #9

Comment 2: The dredging plan as presented in the draft EA could have unacceptable impacts to natural and cultural resources.

Response: See response to Alex Winter Comment #1.

Comment 3: Impacts from increased wave energy

Response: See response to James P. Long Comment # 1.

Comment 4: The Corps does not adequately consider the direct impacts of the dredging and soil placement, nor the cumulative and growth inducing impacts.

Response: The FEA and FONSI is the Corps' analysis of the dredging and placement impacts. Cumulative and growth impacts are included in the FEA. Please see Section 5.16 of the document.

Comment 5: DEA focuses only on the expected benefits.

Response: DEA and FEA include impact analyses for all resources of regional concern.

Comment 6: No Section 106 Consultation.

Response: Section 106 coordination is complete and included in FEA (Sections 5.10, 5.1.2, and 5.2).

Comment 7: DEA does not adequately address potential impact including agency concerns raised during scoping process.

Response: The scope of the project has been reduced to 564,000 cy. Agency coordination has been ongoing since the initial public notice for this project. To the extent possible the FEA addresses all agency and public comments. The potential effects of open-water placement and alternatives to the proposed action are detailed in the FEA.

Comment 8: Dredging Window longer than suggested by NMFS

Response: See Response to James P. Long comment #5

Comment 9: NMFS should be given opportunity to assess the potential effects of this proposed project on Essential Fish Habitat.

Response: USACE has completed consultations with NMFS. Letter included in Appendix A.

Letter from Elmer Biles (dated July 1, 1999)

1. Comment: Corps was suppose to bore 3 additional sediment test holes down to 100 feet or until Potomac group sediments were encountered in the Mattawoman and provide data. To date, Ararat (Elmer Biles) has received no information regarding the results of the planned additional borings.

   Response: The data is provided on the internet site and was sent out to interested parties.

2. Comment: Drilling was only to 50 feet and not to the 100 feet as stated in a letter. Would appreciate clarification of the additional drillings and request that detailed information be provided.

Response: The letter in question stated that drilling would occur to 100 or until the Potomac group was encountered. They were encountered at 26-50 feet.

Letter from Virginia Dept. of Conservation & Recreation (dated July 15, 1999)

Comment 1: Coordination with the USFWS and the VA Dept. of Game and Inland Fisheries to ensure compliance with protected species legislated.

Response: Section 7 consultation with USFWS is complete (Section 4.7 of FEA).

Comment 2: Beneficial uses of the dredged material should have been given more consideration.

Response: See Response to ICPRB Comment #8.

Friends of Daniels Run Park

1. Comment: Concern over sediment erosion at Gunston Cove (when compared with Dyke Marsh)

Response: Dyke Marsh is very shallow compared to Gunston Cove. Studies of the deep holes in the Potomac (in general) and erosion potential of materials proposed for placement (specifically) have indicated very low potential for material erosion from the deep hole at Gunston Cove after placement.

2. Comment: Concern over material suspension and water quality

Response: The sediment has been tested and has very low level of most constituents (Appendix E). Turbidity will occur but will dissipate. The impacts are considered to be minor and short term. During storm events the river becomes very turbid along much of its length.

3. Comment:Material placement may stir up phosphorus

Response: Phosphorous should be bound tightly to the sediment and not be a concern during placement. Phosphorous is usually released during anoxic conditions. Although anoxic conditions have not been found in the summer, which is more likely, placement will occur in the winter to when water is well oxygenated (Section 5.2 of FEA).

4. Comment: No use of Gunston Cove data by Jones and Kelso.

Response: Recent and previous Gunston Cove data is incorporated in the FEA.

5. Comment: Potomac River was designated a National Heritage River in 1998.

Response: See Response to ICPRB Comment # 9

6. Comment: Although NEPA requires the Corps to weigh the public benefits anticipated from the dredging against the negative impacts, the draft EA focuses only on the expected benefits.

Response: See Response to Alex Winter Comment #1.

7. Comment: Concern over fish spawning and impacts to benthics in the placement area.

Response: Most anadromous species that spawn in the Potomac do so in shallow areas. Corps has no evidence that the placement site is a spawning site for American shad. Responses to fisheries spawning concerns can be found in ICPRB Comments # 1 and # 6. Yellow perch spawn early (as early as mid February in some tribs) and could be passing through the area in February. For these reasons the dredging has an environmental window to avoid the spawning activities of these and other species. Dredging should be finished by mid February which should avoid this sensitive time.

Re: benthics: Please refer to Response to James P. Long comment # 7.

8. Comment: The EA has not given serious or in depth consideration to any alternatives to the proposed action.

Response: Please refer to response to ICPRB Comment # 8.

9. Comment: DEA does not adequately addresses potential impact including agency concerns raised during scoping process.

Response: Please see responses to Alex Winter Comment # 1 and Regional Environmental Organizations comment # 7 and ICPRB Comment #4.

Letter from George Mason University (dated July 14, 1999)

1. Comment: Sediment erosion and bottom Composition (wood and shell not fine grain).

Response: Regarding material movement, please see ICPRB Comment #3. According to sediment samples taken by USACE in Gunston Cove placement site, the material is fine grain. Wood and shell were not encountered during our investigations.

2. Comment: EA fails to address nutrient and toxics release.

Response: Please see response to James P. Long comment #4

3. Comment: Failure to use 16 year data base of George Mason University

Response: Please see response to Friends of Daniel Run Park Comment #4.

4. Comment: Benthic information is cursory

Response: Please see response to James P. Long comment # 7.

5. Comment: Alternatives being dismissed and not studied in detail.

Response: Please refer to ICPRB Comment #8

INTERSTATE COMMISSION ON THE POTOMAC RIVER BASIN

Suite 300
6110 Executive Boulevard
Rockville, Md. 20852-3903
(301) 984-1908
FAX (301) 984-5841

July 13 , 1999

Ronald A Cucina, P.E.
Acting Chief, Operations Division
U.S. Army Corps of Engineers
ATTN: CENAB-PL-E
P.O. Box 1715
Baltimore, Maryland 21203-1715

Dear Mr. Cucina:

This letter replies to the U.S. Army Corps of Engineers Baltimore District's request for comments on the draft Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) that were prepared on proposed dredging and open-water placement of dredge material during maintenance of the Federal Channel in the Potomac River. Specifically, we are concerned over the conclusions reached regarding the proposed placement of the approximately 940,000 cubic yards of dredge spoil into the deep-water channel near Gunston Cove, Ft. Belvoir, Virginia and Marshall Hall, Maryland. **The Interstate Commission on the Potomac River Basin (ICPRB) has a direct interest in the possible disposal area because it is in the primary area where American Shad are captured as part of the ICPRB Shad Restoration Project[1].**

(1)

We enclose detailed comments on our concerns. In summary, this stretch of the river is a prime spawning and nursery area for American shad and other important anadromous fishes such as river herrings and striped bass. ICPRB, as part of a multi-agency Task Force[2] effort, is working to restore American shad to support the Corps' efforts to provide a functioning passageway for anadromous fish at the Little Falls (Brookmont) Dam, Potomac River. The ICPRB, the U.S. Fish and Wildlife Service,

---

[1] *Restoration project helps Virginia tradition rebound*. Potomac News. 6-5-99. Online copy attached.

[2] The agencies involved in the Little Falls Fish Passage Task Force include Virginia, Maryland, the District of Columbia, the Interstate Commission on the Potomac River Basin, the Potomac River Fisheries Commission, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, the National Biological Survey, the U.S. Environmental Protection Agency, the National Park Service, the National Marine Fisheries Service, and the National Fish and Wildlife Foundation.

and a host of volunteers and students are in the fifth year of an planned eight year stocking program[3] for American shad which began in 1995. This important shad restoration project and the success of other migrating anadromous fishes would be jeopardized by the re-mobilization of sediments, especially during the high flow periods in the Spring.

We feel that the report's economic arguments which rule out alternative sites do not fairly and adequately include the environmental costs of additional sediment and nutrients that are going to be re-suspended into the Potomac River and the Chesapeake Bay. (2)

In addition, per comments to the public record that you have received,[4] the George Mason University Biology Department and the Metropolitan Washington Council of Governments have both opposed the proposed placement of the dredge spoil. We are concerned about the choice of this site for similar reasons:

- We are not convinced that the dredged material will remain at the proposed disposal site. The 50-foot hole in this area of the Potomac remains deep because it is frequently scoured during high flow conditions. Release and re-suspension of the dredge material from the disposal site, both during and after the disposal process, may seriously contaminate the Potomac Estuary downstream through the release of suspended particles, nutrients and contaminants. (3)

- Water quality status and trends in the fifteen-year, Fairfax County funded, Gunston Cove Ecosystem Monitoring Program data set will be confounded by the impacts of dredge disposal (e.g. clouded water, altered water quality conditions) since the program's monitoring stations are located within the boundaries of the dump site. The usefulness of the monitoring data in assessing long-term improvement and ecosystem recovery in the Potomac River and Chesapeake Bay will be compromised. (4)

As American shad are not specifically addressed in either the draft EA or draft FONSI, we request that the Baltimore District conduct additional analysis of the proposed plans for disposal. We suggest that additional options to the proposed disposal site be considered, but recognize that the project must proceed in a timely manner. If the project is going to proceed, we recommend reducing the duration of disposal operations to ensure that placement of the dredge spoil is completed well in advance of any spawning runs, and that we coordinate our efforts to support the American shad restoration. We encourage detailed monitoring by Corps' personnel and contractors and request that we, and others who have concerns, be kept apprised of Corps project scheduling of dredge spoil placement and monitoring activities.

We appreciate the time that Baltimore District staff have provided in answering our questions

---

[3]Odom, Michael C. *A Strategic Plan for the Restoration of American Shad to the Potomac River Upstream of Little Falls Dam.* 1995 The Fish and Wildlife Service, endorsed and adopted by the Little Falls Task Force.

[4]GMU Letter, October 14, 1998, MWCOG Letter, January 26, 1999

and concerns while preparing this letter. We are confident that solutions to our concerns can be worked out. We look forward to your response.

Sincerely,

Joseph K. Hoffman, Executive Director

enclosures (2)

Enclosure 1.

Sunday, June 5

AMERICAN SHAD

Restoration project helps Virginia tradition rebound

Story by RICK MUIRRAGUI
Photos by STEPHEN M. KATZ

As a gas pump furiously chugged away, Dave Peterson hunched down on his knees, lighted a cigarette and watched as hundreds of thousands of American shad fish larvae launched through a rubber hose into the Potomac River.

The force of the pump turned the river's brown-green water into a pocket of foam and bubbles. The larvae, or fry as they are also called, were each the size of a fingernail and resembled translucent tadpoles.

The dumping took place off a quiet landing in Great Falls National Park on May 17, and represented one of the many minor triumphs of the Potomac River shad restoration project. The goal of the project, which is funded by numerous fish and water agencies in Virginia, Maryland and Washington, D.C., is simple: replenish the dwindling numbers of American shad, which reached an all-time low in 1994.

"They got a lot out there to worry about," said Peterson, who works with the Harrison Lake National Fish Hatchery in Charles City.

He listed the 10-day-old fry's enemies: water temperature, plankton, currents and rainstorms. But those foes are nothing compared to the obstacles shad have been facing for the last 40 or so years.

Once the most important fish in the Potomac River, shad have been devastated by overfishing and pollution. In 1886, more than 22 million shad were plucked from the river, according to some reports. Now shad is a species that requires some looking after.

'SQUEEZING SEASON'

The water was calm off the Howling Point landing in Lorton on April 22. While his 8-year-old daughter Caroline strolled the beach, Jim Cummins helped waterman Lewis Harley load up a motor boat with buckets, nets, life jackets and plastic tubs.

"Why are we out here?" Cummins asked.

"Because it's squeezing season," the little girl answered.

Cummins works with the Potomac River Commission. Starting in mid-April, he and Harley began making excursions on the Potomac to snag ripe shad traveling from the Chesapeake Bay to the river to spawn.

The purpose of these missions is to fertilize eggs. In the water, eggs and milt, or sperm, have a hard time hooking up. In her lifetime, less than 1 percent of a female's eggs will be fertilized. Of course, this is the way it's been for millions of years.

Cummins and Harley just help the process a bit, playing Mother Nature.

They put eggs and milt in a bowl and mix - and it works. The percentage is remarkably different. Sometimes 50 percent of a female's eggs will be fertilized.

The two have a routine: motor out to a spot near Fort Belvoir, drop nets around 7 in the evening, dump supplies on a nearby beach, check the nets for trapped shad, return to the beach, squeeze eggs and milt from the fish, mix the batch, wait an

hour, return to Howling Point, fill bags with fertilized shad eggs and call it a night. This is the duo's fifth year working together.

They usually finish around 11:30 p.m. This exercise is repeated two or three times a week for about eight weeks. The shad spawning season typically ends in the beginning of June. It's a narrow window of time.

Cummins' daughter accompanied the crew because it was Take Your Daughter to Work Day. About 6:45 p.m., when the tide was appropriately low, Harley started his boat, the Southern Skimmer, and pushed off. The rumbling engine roared and soon the boat was speeding across the water and Caroline's hair streamed behind her. As Harley navigated the boat up the river, Cummins explained why shad has been called "the forgotten fish."

Shad are anadromous fish, meaning they live in salt water but return to fresh water to spawn. In Virginia, shad harvests averaged 385,000 pounds a year from 1978 to 1992. In the 1960s and for most of the '70s, the harvests averaged 2 million pounds a year.

A century ago, shad harvests averaged 11 million pounds a year.

In 1983, because numbers had reached such alarming lows, a moratorium was placed on shad harvests. It's illegal to catch shad on the Potomac.

George Washington was one of the river's first watermen, using money from shad fishing to keep his finances and Mount Vernon afloat. On their nighttime shad runs, Cummins and Harley set up in the water about a mile from Washington's estate.

"It's really important to help bring these stocks back," Cummins said.

After sinking nets that stretched 200 yards long and 20 feet under water, the Southern Skimmer was motored to a nearby shore and supplies were unloaded. By this time, the blue-gray sky had surrendered to a darkness sprinkled with bright stars. Faraway lights from the Maryland shore blinked across the river.

"We're going out to get fish and bring them back here," Cummins said.

"And then roast them and eat them?" Caroline asked.

"Not tonight."

Harley, a Pittsburgh Pirates ball cap tugged tight on his forehead, surveyed the gentle waves lapping at the shore. "If you don't catch them tonight, you ain't going to catch them," he said.

A few minutes later, Harley steered the boat back to the middle of the river and Cummins began hoisting up nets. The first net's catch was modest. The second net was stocked with shad, most of which were wedged tight in the nylon and made little effort to wriggle free.

Cummins and Harley checked for ripe shad, males and females. On the underside of the fish are reproductive organs. Egg and milt can be squeezed out by applying pressure along the belly. Doing this, they determined the value of each fish. The ripe ones were tossed into the boat's wooden tank, which was being pumped with water so the fish had a current to swim in; the ones that were not useful went back in the river.

Back on shore, four females at a time were used for the breeding process. Their eggs were squeezed into stainless silver bowls. Milt, or sperm, from the males was added and Cummins mixed the batch with a turkey baster. Then, he poured in water and used a colander so he could separate the fertilized eggs from other eggs, fish scales and slime.

"This is a scientific instrument right here," he said. "Not sure why, but the holes are [the perfect size] for fertilized eggs."

Back at Howling Point at 11:25 p.m., Harley cleaned up, Caroline went to the front seat of Dad's truck for a nap and Cummins pumped oxygen into plastic bags filled with eggs. By now they had hardened and looked like pebbles.

"They turn into little jewels," Cummins said.

HATCHING

If Cummins has a good night on the Potomac, Albert Spells doesn't get much sleep.

When the successful Cummins calls Spells, the director of the Harrison Lake hatchery, and the two drive to meet each other in Fredericksburg - it's usually 2 in the morning when they hook up.

Spells relieves Cummins of the shad eggs and takes them to his Newport News home. Later that morning, he brings them to work in Charles City.

On a trip to the hatchery in early May, Spells showed a batch of shad eggs he had picked up earlier that morning. In the daylight,

they did resemble jewels, white pearls bathed in pinkish water. At another tank, Peterson pointed to a swirling mass that looked almost like big clumps of fine seaweed. Upon closer inspection the cluster turned out to be hundreds of thousands of freshly hatched shad fry. About a week had passed since Cummins had delivered this batch to Spells. Each one had two black dots for eyes and the miniature creatures swam in the 200 gallons of water.

"They don't look like much," Spells said.

When the eggs are brought to the hatchery, they are put in hatching jars and more unfertilized eggs are separated out.

Then, after four or five days, the fry break out of their eggs, swimming through a tube into the larger tank, where Peterson monitors the water temperature and feeds them brine shrimp.

Charts at the hatchery showed that Cummins' April 22 expedition turned out to be a pretty good one. Of the eggs he delivered to Spells, 38 percent of them were fertilized. About 140,000 fry hatched from those eggs.

On their third and ninth day, the fry are marked with non-toxic oxytetracycline. This is a marker that can be spotted by the hatchery personnel if they remove the head of a shad. The marking is important for assessment. If, a few years down the road, project members catch shad with this marker, they will know the restoration is working.

"Our goal is to put us out of business," Spells said.

If the shad restoration project is a success, the Harrison Lake hatchery can move on to other fish who need help.

"Why do you have to help Mother Nature?" Spells said. "Well, we did a lot to hurt Mother Nature. She needs some help."

In addition to trying to fill the Potomac River with fish, project organizers also want to provide education about shad. There is a fear that no one under 40 remembers shad. In 1996, members of the Chesapeake Bay Foundation started a program called "Schools in Schools." Selected elementary, middle school and high school classes from Virginia, Maryland and Washington, D.C., are given liters of shad fry to keep in the classroom. The hope is that students will remember the experience and later do their part to bring shad back to prominence.

"It's a way to develop confidence in the kids," Spells said. "They learn the importance of protecting the habitat and keeping the water clean. ... We're developing an appreciation for the shad."

LITTLE FRY GO HOME

When the fry are about 10 days old, Peterson and Debbie Norman, a student employee at the hatchery, load a 200-gallon

tank onto a flat bed truck and make the three-hour trip from Charles City to Great Falls.

News, Sports, Lifestyles, Diversions,
Taste, Editorial Page, Classifieds,
Photo Gallery, About the Potomac News,
Newcomer's Guide,
Prince William County Links

Enclosure 2.

Interstate Commission on the Potomac River Basin's specific comments and major concerns regarding the Baltimore District's draft Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) that were prepared on proposed dredging and open-water placement of dredge material during maintenance of the federal channel in the Potomac River.

1. "It is anticipated based on Corps engineering analysis that the placement of sediment within Gunston Cove will form cohesive mounds, thus enhancing fish habitat, and will not produce a significant turbidity plume." (EA, Executive Summary, pg 2). "Anticipated effects include minor and temporary turbidity in the immediate area of disposal." (EA, p *ii*)

Our primary concern regards re-suspension during high flow events. "This happens naturally during flood events, especially in the deep erosional channels (or thalwegs) of the present river." (EA, p 12). This is exactly why we are concerned about the material being placed in the channel. Our concerns were similar to the EA's regarding placement at Dyke Marsh where it was "feared that un-contained sediments would be quickly eroded and increase the turbidity of the water downstream from the site." (EA, p 8) That this concern was not expressed for the channel sites, which are also not contained, is inconsistent.

Secondarily, the sediment characteristics from all sites are "fine-grained." (EA, p *i*) This was especially true for the Alexandria sediments. Even if these fine-grained sediments are deposited from the barges as a "cohesive unit" (EA, p 9), when they are dumped to depths of upwards to 50' (EA, p *i*) there will be great chances for re-suspension and loss of cohesive integrity. (5)

2. "Environmental investigation of the proposed placement site indicates that no Shortnose Sturgeon are found in that area of the Potomac River" (EA, Executive Summary, p 2), and "the deep hole proposed for placement is not a known spawning or nursery area." (EA, p 21).

Those environmental studies also found no American shad, which are known to use the site as a spawning and nursery area. Therefore, the first conclusion regarding shortnose sturgeon is premature considering it was based on "limited data" (EA, p 16) from a preliminary fisheries study and a half-completed survey by the U.S. Fish and Wildlife Service. (6)

The second conclusion regarding anadromous fishes, especially American shad, is incorrect. For the past five years the ICPRB has collected spawning American shad in that area and provided over 10 million fertilized American shad eggs to the U.S. Fish and Service's Harrison Lake National Fish Hatchery for later stocking of shad fry into the Potomac River upstream of the Brookmont Dam at Little Falls. During the course of our work we have also collected hickory shad, alewife and blueback herring and striped bass which are all using this area as a spawning ground and a nursery area. The discrepancy in what the EA reports and what we have documented calls into question the timing and duration of the EA study. In addition, that the EA states the deep hole proposed for placement is not a known spawning or nursery area also seems to overlook the Baltimore District's coordination with the National Marine Fisheries Service (NMFS). "NMFS has indicated that this portion of the Potomac River could provide EFH (Essential Fish Habitat) for Alosids (such as Alewife, Atlantic menhaden, and Blueback Herring)..."(EA, p 16).

As per our concerns expressed in Item 1, we are not confident that the dredged material will stay in place as proposed. Re-suspension of this material while this area is being used for spawning or as a nursery would likely be detrimental to these fishes.

3. "Any adverse impacts of the project will occur over a relatively small area and will be primarily short-term in a nature." (FONSI)

Interpreting the dredging of approximately seven miles of river to a 24' deep and 200' wide producing 970,000 cubic yards of material and depositing it up to 12 miles away in unique deep water trenches is "occuring in relatively small area" is taking license to down-scale. To say it "will be primarily short term in nature" given that the "study area has a U.S. EPA Index of Watershed Indicators score of 2, indicating that the water quality is highly vulnerable to stressors such as pollutant loading..." (EA, p 11) is conversely making large assumptions. (7)

We concur with wisdom expressed in the Chesapeake Bay Commission's Resolution Concerning Dredged Material Management which resolves that "the overboard disposal of dredged materials contributes to the redistribution of sediment loads to the Chesapeake Bay system, and therefore, "adverse environmental problems are to be avoided to the maximum extent possible."

4. Alternative disposal sites "were found to be impractical at this time." (EA, p 3)

Many of the studied alternatives were poor candidate sites to begin with little merit for investigation. ICPRB understands the difficulties that the Baltimore District faces with finding candidate sites in and near urban areas. However, the candidate sites selected were obviously either 1) too small, 2) preserved and protected public forest lands, 3) other open water sites, most too shallow and with known SAV beds at the time of the 1988 siting study, 4) closed to dredge disposal, and 5) even "unusable, due to existing agreements" (EA, p 9) . If the dredged material is re-suspended in this sensitive area of the river the environmental and economic impacts, often difficult to assess and therefore easily brushed aside in the planning process, could be quite large. Additional sites still need to be identified and considered, with economic evaluations more balanced and rigorous. (8)

5. "The Lower Potomac River is not listed as a Federal or State Wild or Scenic River, and no other rivers are located at or near the project area." (EA, p 17).

While this statement is accurate and complies with the reporting requirements of the EA, it excludes the Potomac River is an American Heritage River, leading to item #6, below. (9)

6. "Placement of the Dredge material at the Gunston Cove site does not have the potential to adversely effect any submerged cultural resources that might be located there (EA, p 17)."

Two of the operative words in that lead to the conclusion in this statement are also of concern; 1) "potential," considering that such resources in an area of 120 acres will be covered with 8' or more of material (EA, p 6), and 2) "might," which implies that those resources still are unknown and need to be evaluated.

Ronald A. Cucina
U.S. Army Corps of Engineers
ATTN: CENAB-PL-E
P.O. Box 1715
Baltimore, MD 21203

July 14, 1999
Via FAX: 410-962-3660

Re: Potomac River dredging draft Environmental Assessment

Dear Mr. Cucina:

Thank you for this opportunity to comment on the draft Environmental Assessment (DEA) for the proposed dredging of the Potomac River. The DEA covers dredging at the Alexandria Waterfront, the Hunting Creek channel, and the Mattawoman channel, and spoil deposition near Gunston Cove. Seven miles of channel would be dredged to provide a depth of 24 feet and width of 200 feet, amounting to 970,000 cubic yards of material, which exceeds the sum of other anticipated dredgings in the near future, as described in Section 5.16, p. 25.

This is the first DEA to be prepared for Potomac River dredging since passage of the National Environmental Policy Act (NEPA). Because it is the first, and because future dredging will likely refer back to this environmental review, a very thorough approach would be justified. However, I believe the present DEA falls short of a thorough review because of several omissions and sketchy treatments.

(1)

The impacts of increased boat traffic are not treated:

The DEA fails to address, or even to acknowledge, future indirect impacts caused or enabled by the dredging. For example, at the workshop held in Indian Head, I asked personnel from the Army Corps of Engineers (ACE) after the formal program if an analysis of the impacts of increased boat wakes would be incorporated in the EA and was assured they would be. However such impacts are not acknowledged, even though the DEA states "the city of Alexandria expects a significant increase in cruise ship visits once the authorized depths are restored." Numerous letters from other public and private agencies promoting an increase may be found in Appendix A. The DEA makes no attempt to understand how large an increase may occur in traffic of large boats nor does it attempt to analyze the significance of boat wake from ships with large drafts.

On July 31, 1997, the ACE, Baltimore District (CENAB-PL-P), released a "Reconnaissance Study" of the Lower Potomac River Basin that encompasses the Potomac watershed from the river's mouth to Piscataway Creek. The Study reports (p. 6): "The shorelines of the Potomac River and tidal tributaries are subject to severe erosion from wave energy. The potential impacts of continued shoreline erosion include loss of private and public land, public access/roads, archeological resources, historical buildings, and tidal and estuarine habitat." The DEA makes no reference to this study. Note that these impacts are not limited to ecological issues but also include cultural issues. The DEA makes no acknowledgment of the possible impacts of wake erosion in its discussion of impacts to cultural resources and thus may not meet the requirements

of Section 106 of the National Historic Preservation Act.

Boat wakes also resuspend sediment in shallow water that can, for example, hamper fish spawning success and growth of SAV. Large waves also disturb fish-spawning physically, especially fish nests such those of the economically important largemouth bass. A conservative estimate puts the value of the Potomac largemouth bass fishery at $25 million per year for Maryland alone. This compares with the anticipated commerce of cruise ship activity cited in a number of letters that amounts to $223 million over nine years, or $24.7 million per year.

Other possible impacts from increased traffic of large boats, such as air quality and noise, are not addressed in the DEA.

Discussion of points raised over spoil deposition is incomplete:

The U.S. Fish and Wildlife (USFWS) letter in Appendix A dated August 18, 1998 makes reference to an earlier USFWS letter of June 11, 1998. This earlier letter is missing.

The USFWS letter of August 18, 1998 states "In summary, we believe that the deep area near Gunston Cove does not have enough capacity to safely accommodate all of the proposed dredged material. We suggest that the deep area near the Route 301 bridge be considered to receive the material from the Mattawoman channel section". The USFWS letter expresses concern for hydraulic changes and increased erosion with the dumping of so much material (970,000 cubic yards). In contrast, the EA states (Executive Summary): "The material will be removed by mechanical dredge, and placed in a naturally occurring 35-50 foot-deep hole at Gunston Cove".

The DEA does not explain why it is ignoring the USFWS recommendation. It simply states (p. 3, section 3.0) "The open-water disposal sites were eliminated from consideration for the proposed project, because they are each further away from the dredging site than the proposed disposal site is, and would therefore incur higher transportation costs without a significant change in environmental impact". No analysis of the higher costs is offered. No justification is given for the belief that there would be no significant change in environmental impact. Instead, Section 3.2.2.6, p. 7, simply asserts "the potential effects of [open water deposition] would be very similar." (2)

Professors from George Mason University also raise, in a letter of Oct. 14, 1998, the issue that so much material dumped in a channel where currents are naturally strong can be expected to be eroded by the strong currents and to increase siltation over an extended period. The DEA does not address this objection directly with any quantitative evidence (see below).

Concern over the placement of spoils is also raised by NMFS. In a June 18, 1998 letter, NMFS states: "Our chief concerns for use of the Gunston Cove site continue to be: 1) the hydrodynamic stability of spoil placed at this site; and, 2) the physical and chemical composition of the spoil, compared to the composition of existing surficial sediments of the placement site." (3)

Given the breadth of concern over the stability of spoils in a deep trench, it is surprising that the

body of the DEA does not point out the USFWS objection to dumping the entirety of the spoils in the Gunston hole, nor the NMFS concern over the spoil stability. The DEA attempts to address these concerns indirectly, speculating in Section 5.3, p. 19, that "This material...is likely to remain as a large mass as it is released through the bottom of the barge and descends to the river floor". This section (and other sections) refer to sediment analysis. However, no information is given as to the protocols used for the sediment analysis and no description other than qualitative statements are given to report the results of the analysis. Thus no evidence is presented in the DEA to answer the concerns raised by George Mason University or the Department of Natural Resources or USFWS concerning spoils stability.

The DEA, in Section 5.3, discusses nutrient release, and concludes it would be "minor". However, minor is not characterized quantitatively, or even relatively, so it is impossible to understand what this means. (4)

Explanation of scheduling is incomplete:

The National Marine Fisheries Service (NMFS) recommends that dredging and deposition operations be constrained within an environmental window from mid-October to mid-December. In a letter dated June 4, 1998 NMFS states: "Therefore, spoil disposal operations should be conducted from mid-October to mid-December, which should provide at least 7 to 8 months of oxic bottom water conditions during and following spoil placement". The letter also states: "Additionally, NMFS recommends that dredging and spoil disposal operations be restricted from December 16 to October 15 to minimize disturbance to overwintering finfish using the Gunston Cove deep hole, avoid anadromous fish spawning activities, and protect local beds of submerged aquatic vegetation, should significant sediment resuspension and movement occur during the operation".

In contrast to the NMFS recommendation, the DEA Executive Summary states operations would extend two and half months beyond the mid-December cut off: "It is anticipated that dredging will occur between the months of October and February". The body of the DEA does not raise the NMFS recommendation and does not justify in a direct way the ACE's extension of the environmental window into February. (5)

The very cursory treatment of the sediment plumes anticipated from the operations of dredging and spoil deposition suggests that very little is in fact known. Thus scheduling becomes a primary way of reducing possible, unknown, impacts. Because of the importance of the environmental window, the EA should explain its longer window compared to the NMFS recommendation. In addition, a detailed schedule of activities should be presented in the EA and a contingency plan should also be presented if circumstances delay the activities.

Impacts to benthic communities are not fully addressed:

On p. 14, Section 4.6.2, a benthic sampling site of "a deep hole near Gunston Cove" is said to be shown on Map 10. I could find no Map 10. (6)

The language in the DEA seems to suggest that none of the dredging sites, nor the *actual* proposed spoil deposition site, have been surveyed for benthic communities. Because dredging is utterly disruptive of benthic communities, a basic understanding of the environmental impacts of dredging would require surveys of benthic communities at the actual sites involved, both the dredging and the deposition sites. Dredging occurs at the infrequently occurring shallowest saddle points in the topology of the river thalweg. This unusual physical habitat may be allied with unusual benthic communities. (7)

The DEA acknowledges that benthic communities will be impacted, e.g., in Section 5.6.2, p. 21. However, it states in this section that "benthic organisms will adapt." This statement is misleading since it could be construed to mean that all disturbed benthic organisms will somehow survive.

While it may be reasonable to expect that no federally endangered benthic species are present, this is not stated explicitly. For example, the federally endangered freshwater mussel *Alasmidonta heterodon* (dwarfwedge mussel) is found in nearby watersheds draining into the vicinity and has been reported historically for the Potomac River (collection at the Museum of Natural History). In addition, shells of two freshwater mussel species of concern are found washed up on the shores in the areas to be dredged. Both *Ligumia nasuta* (Eastern Pondmussel) and *Leptodea ochracea* (Tidewater mucket) are being considered for inclusion on the Heritage List by the state of Maryland ("Rare, threatened, and endangered animals of Maryland," Maryland Department of Natural Resources, Annapolis, 1994) and both are designated "of special concern" in a north American review [J.D. Williams et al., "Conservation status of the freshwater mussels of the United States and Canada", Fisheries, vol 18, pp. 6-22 (1993)]. Maryland's Department of Natural Resources should be consulted in this matter.

<u>Hazardous substances discussion is incomplete:</u>

Section 4.11, p. 17, discusses arsenic. However it does not discuss other metal contaminants. While Section 5.12, p. 23, states that "There are no other significant levels of contamination within the sediment to be dredged," no information is given about what contaminants were tested for, nor the results. This oversight must be rectified in a final EA. The DEA actually leads one to believe that no analysis was accomplished, and that the assertion that no contaminants are present is based on the review of various databases referred to in Section 4.11. Given the proximity of superfund sites (i.e., Navy Yard, Washington, D.C., and the Naval Surface Warfare Center, Indian Head Division) and the long historical use of the river, it would seem necessary to analyze sediment samples before concluding that no toxics would be resuspended or transferred. (8)

Sincerely,

James P. Long
1135 Overlook Dr.
Accokeek MD 20607

ALEX WINTER

POB 179
BRYANS ROAD MD 20616
(301) 283-2948 FOMA@RADIX.NET

July 16, 1999

Col. Bruce Berwick, P.E.
Acting Chief, Operations Division
U.S. Army Corps of Engineers
ATTN: CENAB-PL-E
P.O. Box 1715
Baltimore, MD 21203-1715
FAX: (410) 962-7516

Re: dredging

Dear Col. Berwick:

I am very concerned about the manner in which the Army Corps has been handling a number of issues, and the manner of review of the proposed dredging of the Potomac nagivational channel is one of them.

My participation as a citizen activist in the review of a number of Corps projects does not give me great confidence in the Corps' attention to the requirements of federal review laws. These laws are absolutely essential to the wellbeing of the people of this country.

It has just come to my attention that in today's Maryland Independent, the primary newspaper originating in Charles County, Maryland, there is an article on the proposed dredging project which speaks as though approval of the dredging and deposition of spoils will certainly go forward. This casts doubt on the Corps' intent to fairly review comments on the draft Environmental Assessment -- which is seriously flawed. (1)

Although the comment period on the proposed dredging project is supposed to end today, I will add further comments Monday or so, based on that newspaper article. Thank you.

Sincerely,

Alex Winter

ALEX WINTER

POB 179 BRYANS ROAD MD 20616
(301) 283-2948 FOMA@RADIX.NET

July 19, 1999

Col Bruce Berwick, P.E.
Commander, Baltimore District, U.S. Army Corps of Engineers
ATTN: CENAB-PL-E
P.O. Box 1715
Baltimore, MD 21203-1715
FAX: (410) 962-7516

Re: dredging of Potomac channel

Dear Col. Berwick:

On July 16, last Friday, I wrote to you regarding the proposed dredging and desposition of spoils in the Potomac navigation channel. I am opposed to this project, as currently designed, and object to the manner in which it has been processed. As I stated in my letter on Friday, I was disturbed to learn that there was an article published in the Maryland Independent stating that the dredging would go forward. Now I have read this article and it is further evidence that the Corps, in its review, worked backwards from a Finding of No Significant Impact. This review must be reopened and done appropriately.

The article by Nancy Bromley McConaty states that Corps project engineer Robert Blama says the dredging will take place. The comment period ended after the publication of the article. For the Corps to be making these statements before the end of the comment period shows that no serious review was intended This was painfully obvious throughout the process.

Mr. Blama, according to the article, claimed that test borings showed there was no chance of salt water intruding into the Patapsco aquifer. In a letter to Christina Correale of your office commenting on the March public hearing in Indian Head on the proposed dredging I wrote:

> Furthermore, the Corps' intent to go forward with this project without proper review was evident by the scientific controversy that showed itself at the Indian Head hearing. The hydrogeologist who made the presentation for the Corps stated as absolute fact that the dredging posed absolutely no danger of significant saltwater intrusion in area aquifers because the Potomac River is already a major source of recharge for the Patapsco aquifer. The geologist for the Maryland Department of the Environment strongly disagreed; and in our community, it is widely known that various federal and state agencies have come up with a conclusion far different from the Corps'. Considering the absolute certainty exhibited by the Corps on this point, it is clear that major work is being contemplated without adequate review.

(2)

It is not appropriate for this major federal action, the proposed dredging, to go forward when the Corps disagrees not only with other scientific experts, but with itself. The Corps is starting out with certain conclusions and then composing assertions, even conflicting assertions, to support those conclusions.

Sincerely,

Alex Winter

FAX

JULY 16, 1999

TO: COL. BRUCE BERWICK, ARMY CORPS OF ENGINEERS

FROM: REGIONAL ENVIRONMENTAL ORGANIZATIONS

RE: PROPOSED POTOMAC RIVER DREDGING

THE ENCLOSED LETTER IS FROM THE FOLLOWING ORGANIZATIONS

Robert Boone
Anacostia Watershed Society

Brent Blackwelder
Friends of the Earth

George Wilmot
Citizens for a Better Charles County.

Bill Shepard
Maryland BASS Federation

Stewart Schwartz, Executive Director
Coalition for Smarter Growth

Roderick Simmons
Maryland Native Plant Society

Alex Winter
Friends of Mount Aventine

Erik Jansson
Potomac River Association

Karen Egloff
Friends of Oxon Hill

Christopher B. Bedford
Sierra Club, Maryland Chapter

James P. Long
Friends of Mattawoman Creek

Gwyn Jones
Sierra Club, New Columbia Chapter

July 16, 1999

RE: Potomac River, proposed channel dredging

Col. Bruce Berwick, P.E.
Acting Chief, Operations Division
U.S. Army Corps of Engineers
ATTN: CENAB-PL-E
P.O. Box 1715
Baltimore, MD 21203-1715
FAX: (410) 962-7516

Dear Col. Berwick:

The undersigned organizations oppose the proposed dredging plan for the Potomac River, because the Draft Environmental Assessment fails to consider adequately the impacts as required by federal law. This would be the first dredging of the Potomac River Federal Navigation Channel since enactment of the National Environmental Policy Act (NEPA). Therefore, there is no previous NEPA documentation nor has baseline analysis been established.

Last year the Potomac River was named an American Heritage River. The Potomac has played a central role in our nation's history, and its shores are in a remarkably natural state compared to rivers flowing through other great cities. It would not be consistent with the American Heritage designation for the Corps to ignore the requirements of federal law. (1)

If any dredging of the Potomac River is to be done, the requirements of NEPA and the National Historical Preservation Act (NHPA) must be met. The dredging plan as presented in your Draft Environmental Assessment (DEA) could have unacceptable impacts to natural and cultural resources. (2)

Furthermore, the draft Finding of No Significant Impact (DFNSI) is the result of inadequate analysis. The Corps does not even refer to its own July 31, 1997, "Reconnaissance Study" which states: "The shorelines of the Potomac River and tidal tributaries are subject to severe erosion from wave energy. The potential impacts of continued shoreline erosion include loss of private and public land, public access/roads, acheological resources, historical buildings, and tidal and estuarine habitat." Reconnaissance Study, page 6.

Increased wave energy from increased large-boat traffic is a likely result of the proposed dredging, yet the DEA wholly ignores this result and the many impacts associated with it. (3)

The Corps does not adequately consider the direct impacts of the dredging and soil placement, nor the cumulative and growth inducing impacts. It is clear from the statements of dredging advocates in your file that growth in shipping is sought and expected from the proposed dredging. (4)

Although NEPA requires the Corps to weigh the public benefits anticipated from the dredging against the negative impacts, the DEA focuses only on the expected benefits. The DEA repeatedly asserts that no significant impacts to natural or cultural resources would result from the dredging but does not support its assertions. (5)

In regard to NHPA, the Corps does not even make the required identification of an Area of Project Effect, and there is no evidence that Section 106 review has been initiated, let alone completed. There are numerous historical properties along the Potomac River that would likely be negatively impacted by the proposed dredging. Among the cumulative impacts, increased shoreline erosion and visual and sound (6)

effects from shipping-associated shoreline construction. The DEA does not identify let alone analyze these impacts.

The proposed dredging would constitute a major federal action, yet the Corps has not undertaken a serious analysis and weighing of benefits against negative impacts. There are other concerns which the Corps has addressed superficially or not at all. US Fish and Wildlife Service has commented that the proposed spoils site "does not have enough capacity to safely accommodate all of the proposed dredged material." National Marine Fisheries Service has expressed concern about "the hydrodynamic stability of the spoil" and its "physical and chemical composition." The dredging threatens the future of the fish monitoring station operated by George Mason University experts at Gunston Cove. This monitoring station provides important data to the Maryland Department of Natural Resources. (7)

In the Corps alternatives analysis, the harm from open water deposition is not adequately acknowledged, the range of alternatives has not been adequate, and the true relative costs has not been quantified or analyzed.

The Corps appears to be in a hurry to approve the project so that the dredging and deposition can be done within a certain window of opportunity. But the Corps intends to extend operations in this project two months beyond the time limit proposed by the National Marine Fisheries Service. Without adequate environmental review and Section 106 review, however, the Corps cannot legitimately authorized the proposed work. We ask that the Corps fulfill its duties under federal law. (8)

We specifically request that the National Marine Fisheries Service be given full opportunity to assess the potential effects of this proposed project on Essential Fish Habitat and provide recommendations based on the precautionary approach. (9)

Signers:

Robert Boone
Anacostia Watershed Society

George Wilgus
Citizens for a Better Charles County

Stewart Schwartz, Executive Director
Coalition for Smarter Growth

Alex Winter
Friends of Mount Aventine

Karen Egloff
Friends of Oxon Hill

James P. Long
Friends of Mattawoman Creek

Brent Blackwelder
Friends of the Earth

Bill Shepard
Maryland BASS Federation

Roderick Simmons
Maryland Native Plant Society

Erik Jansson
Potomac River Association

Christopher B. Bedford
Sierra Club, Maryland Chapter

Gwyn Jones
Sierra Club, National Capital Chapter

All signatures by Alex Winter as authorized by signers.

ALEX WINTER
POB 179
BRYANS ROAD MD 20616
301 283 2948

cc: Hon. Paul Sarbanes
John Fowler, Advisory Council on Historic Preservation
Michael McCabe, Environmental Protection Agency

ARARAT
6816 Indian Head Highway
Indian Head, Maryland 20640

FACSIMILE COVER SHEET

Date: 7/16/99 FAX# 410 962 7516

Total Pages including cover sheet 3

TO: Col. Bruce A. Berwick

FROM: Elmer Biles

SUBJECT: CENAB-OP-TN

Please provide copies to Mr. Cucina

Corps to begin dredging Potomac in fall

By NANCY BROMLEY McCONATY
Independent Staff Writer

The U.S. Army Corps of Engineers will begin removing about 418,000 cubic yards of sediment from the Mattawoman Bar in the fall.

Corps officials said maintenance dredging of seven miles of the Potomac River from the City of Alexandria waterfront in northern Virginia to the Mattawoman Bar in western Charles County is scheduled to start in October. The project is expected to be completed by February, said Robert Blama, the Corps' project engineer.

The Corps held a workshop in March in Indian Head to gather citizen comments and concerns regarding the estimated $2 million to $4 million project, which will deepen the channel to allow easy navigation for large cruise ships. Roy Hancock, director of the Charles County Department of Planning and Growth Management, said Wednesday county officials shared a couple of concerns with the residents who attended the meeting.

Hancock said the Charles County Commissioners sent the Corps a letter stating their concern that the dredging project will cause salt water to intrude in the groundwater. It is a problem that has been regularly occurring in west county private wells for quite some time. The commissioners said they feared the project will worsen the situation.

"The commissioners and residents are concerned that the dredging will impact and expose the (Patapsco) aquifer to salt water intrusion," Hancock said. "The Corps did some borings (in the river bed), but they didn't go very deep. ... The residents asked the Corps to go deeper, and the commissioners endorsed the request."

Blama said data from the second borings indicates there is no chance of salt water intruding into the aquifer. The first borings were at six feet, and the second were dug 50 feet into the river bed.

"There's still sediment 35 to 50 feet above the aquifer," Blama said. "There's plenty of protection from salt water intrusion."

The corps will dredge the channel to the authorized depth of 24 feet, Blama said. It is 200 feet wide in the three areas where it will be dredged, according to an Environmental Assessment (EA) done for the project.

About 440,000 cubic yards of material will be removed from the channel at the City of Alexandria's waterfront, and 108,000 cubic yards will be taken from the Hunting Creek bar area, according to the assessment.

The material will be mechanically dredged and placed in a "naturally occurring deep hole" with a depth of 35 feet to 50 feet in the river bed near Gunston Cove in Maryland, according to the EA.

Corps engineers said the sediment placed in Gunston Cove will form "cohesive mounds, thus enhancing fish habitat."

According to the environmental analysis, no shortnose sturgeon live in the area where the dredging will occur, nor do any other fish species use the area for "overwintering."

Some temporary consequences of the dredging include minor emissions from the dredging equipment; burial of existing sediments at the material placement site; minor, temporary turbidity in the dredging area; and increased noise from the operation of the equipment.

There will be a temporary displacement of fish species that inhabit the the areas where the mechanical dredging equipment is operated, Blama said. Sessile aquatic organisms living in the channel where the dredging will take place will be removed.

"If there's any nonmoving organisms, they're going to be picked up," Blama said. "Sessile live in the sediment. They don't move."

Once the project is completed, large commercial vessels will be able to more easily navigate the channel.

"Commercial interests need the additional depths," Blama explained. "Now, only smaller boats can come in."

The Maryland Department of the Environment has issued the Corps a water quality certificate.

Blama said the document allows the placement of the dredged material at the site at Gunston Cove and ensures the water quality of the river will not be compromised by the project.

nes S. Gilmore, III
/ernor

John Paul Woodley, Jr.
Secretary of Natural Resources

David G. Brickley
Director

COMMONWEALTH of VIRGINIA

DEPARTMENT OF CONSERVATION AND RECREATION

203 Governor Street, Suite 326
TDD (804) 786-2121 Richmond, Virginia 23219-2010 (804) 786-2556 FAX (804) 371-7899

July 15, 1999

Mr. Ronald A. Cucina,
Acting, Chief, Operations Division
U. S. Army Corps of Engineers
ATTN: CENAB-PL-E
P. O. Box 1715
Baltimore, Maryland 21203-1715

Re: Potomac River Federal Navigation Projects, Proposed Dredging of the Federal Channel at the Alexandria Waterfront, the Hunting Creek Channel and the Mattawoman Channel in the Upper Potomac River

Dear Mr. Cucina:

The Department of Conservation and Recreation did not become aware of the Notice of Availability to comment on this project until July 7, 1999. Our request to have an extension on the comment deadline was not granted. Therefore, we offer these limited comments on the project.

DIVISION OF NATURAL HERITAGE

The Department of Conservation and Recreation (DCR) has reviewed the draft Environmental Assessment (EA) which evaluates the effects of the proposed dredging and open water placement of material dredged during the maintenance of the Potomac River. DCR has searched its Biological and Conservation Data System (BCD) for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in our files, natural heritage resources have not been documented in the vicinity of the Alexandria or Mattawoman dredge sites. While several rare wetland species have been documented near the Hunting Creek site, we do not anticipate that the dredging of this channel will adversely affect these species.

Several Bald Eagle nest sites (*Haliaeetus leucocephalus*, G4/S2S3/LT/LE) have been documented in the Gunston Cove/Mason Neck area. Bald Eagle nest sites are often found in the midst of large wooded areas near marshes or other bodies of water (Byrd, 1991). Threats to this species include human disturbance of nest sites and development of feeding and breeding areas (Byrd, 1991). Due to the concentration of Bald Eagles in this portion of the study area, DCR recommends coordination with the United States Fish and Wildlife Service (USFWS) and the Virginia Department of Game and Inland Fisheries (VDGIF) to ensure compliance with protected species legislation. (1)

Any absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. New and updated information is continually added to BCD. Please contact DCR for an update on this natural heritage information if a significant amount of time passes before it is utilized.

DIVISION OF SOIL AND WATER CONSERVATION

Beneficial uses of the dredged material should have been given more consideration in the draft document. While the material is not suitable for beach nourishment, material placement for wetland restoration or habitat enhancement should have been more thoroughly investigated. (2)

DIVISION OF PLANNING AND RECREATION RESOURCES

The proposed project is not anticipated to have any adverse impacts on existing or planned recreational facilities. Nor will it impact any streams on the National Park Service Nationwide Inventory, Final List of Rivers, potential Scenic Rivers or existing or potential State Scenic Byways.

Thank you for the opportunity to comment on this project.

Sincerely,

Derral Jones/saw

Derral Jones
Planning Bureau Manager

/saw

cc: John Wolflin, USFWS
Rebecca Wadja, VDGIF
Ray Fernald, VDGIF

Literature Cited

Byrd, M.A. 1991. Bald eagle. In Virginia's Endangered Species: Proceedings of a Symposium. K. Terwilliger ed. The McDonald and Woodward Publishing Company, Blacksburg, Virginia. Pp. 499-501.

Definition of Abbreviations Used on Natural Heritage Resource Lists of the Virginia Department of Conservation and Recreation

Natural Heritage Ranks

The following ranks are used by the Virginia Department of Conservation and Recreation to set protection priorities for natural heritage resources. Natural Heritage Resources, or "NHR's," are rare plant and animal species, rare and exemplary natural communities, and significant geologic features. The primary criterion for ranking NHR's is the number of populations or occurrences, i.e. the number of known distinct localities. Also of great importance is the number of individuals in existence at each locality or, if a highly mobile organism (e.g., sea turtles, many birds, and butterflies), the total number of individuals. Other considerations may include the quality of the occurrences, the number of protected occurrences, and threats. However, the emphasis remains on the number of populations or occurrences such that ranks will be an index of known biological rarity.

S1 Extremely rare; usually 5 or fewer populations or occurrences in the state; or may be a few remaining individuals; often especially vulnerable to extirpation.

S2 Very rare; usually between 5 and 20 populations or occurrences; or with many individuals in fewer occurrences; often susceptible to becoming extirpated.

S3 Rare to uncommon; usually between 20 and 100 populations or occurrences; may have fewer occurrences, but with a large number of individuals in some populations; may be susceptible to large-scale disturbances.

S4 Common; usually >100 populations or occurrences, but may be fewer with many large populations; may be restricted to only a portion of the state; usually not susceptible to immediate threats.

S5 Very common; demonstrably secure under present conditions.

SA Accidental in the state.

S#B Breeding status of an organism within the state.

SH Historically known from the state, but not verified for an extended period, usually > 15 years; this rank is used primarily when inventory has been attempted recently.

S#N Non-breeding status within the state. Usually applied to winter resident species.

SU Status uncertain, often because of low search effort or cryptic nature of the element.

SX Apparently extirpated from the state.

SZ Long distance migrant whose occurrences during migration are too irregular, transitory and/or dispersed to be reliably identified, mapped and protected.

Global ranks are similar, but refer to a species' rarity throughout its total range. Global ranks are denoted with a "G" followed by a character. Note that GA and GN are not used and GX means apparently extinct. A "Q" in a rank indicates that a taxonomic question concerning that species exists. Ranks for subspecies are denoted with a "T". The global and state ranks combined (e.g. G2/S1) give an instant grasp of a species' known rarity.

These ranks should not be interpreted as legal designations.

Federal Legal Status

The Division of Natural Heritage uses the standard abbreviations for Federal endangerment developed by the U.S. Fish and Wildlife Service, Division of Endangered Species and Habitat Conservation.

LE Listed Endangered - threatened with extinction throughout all or a significant portion of its range
LT Listed Threatened - likely to become endangered in the foreseeable future
PE Proposed Endangered
PT Proposed Threatened
C Candidate - enough information is available to propose for listing, but listing is "precluded by other pending proposals of higher priority"
E(S/A) Treat as endangered because of similarity of appearance
T(S/A) Treat as threatened because of similarity of appearance
SOC Species of Concern -- species that merit special concern (not a regulatory category)
NF No federal legal status

State Legal Status

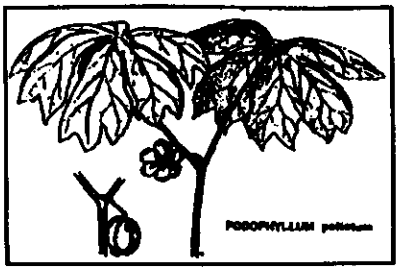
The Division of Natural Heritage uses similar abbreviations for State endangerment.

LE Listed Endangered
LT Listed Threatened
C Candidate
PE Proposed Endangered
PT Proposed Threatened
SC Special Concern -- animals that merit special concern according to VDGIF (not a regulatory category)
NS No state legal status

For information on the laws pertaining to threatened or endangered species, contact:
U.S. Fish and Wildlife Service for all FEDERALLY listed species
Department of Agriculture and Consumer Services Plant Protection Bureau for STATE listed plants and insects
Department of Game and Inland Fisheries for all other STATE listed animals

Faxed July 15, 1999

PES
Larry E



Friends of Daniels Run Park
3517 Queen Anne Dr.
Fairfax, VA 22030
(703) 352-3760

July 15, 1999

Col. Bruce Berwick, P.E.
Acting Chief, Operations Division
U.S. Army Corps of Engineers
ATTN: CENAB-PL-E
P.O. Box 1715
Baltimore, MD 21203-1715

Dear Colonel Berwick:

Friends of Daniels Run Park opposes the proposed dredging plan for the Potomac River. We wish to make the following comments on the draft Environmental Assessment and the draft Finding of No Significant Impact for dredging of the Potomac River and deposition of spoils.

This is the first Environmental Assessment ever prepared for Potomac River dredging under the National Environmental Policy Act (NEPA). Because future dredging proposals will most likely refer back to this Environmental Assessment, it is incumbent that the Corps do a thorough job of assessing the environmental impacts of this proposed action. Seven miles of the channel would be dredged and nearly one million cubic yards of dredged material will be deposited in the Potomac River channel adjacent to the Belvoir Peninsula. The Environmental Assessment refers to "placing the material in a naturally occurring 35-50 foot-deep hole at Gunston Cove." The "hole" referred to is actually a trough, i.e. the channel itself, not a hole. Disposal of the spoil is obviously going to change the channel vertically and it could force the channel to start eroding horizontally. The EA states that there will be no vertical or horizontal change in the channel.

In section 3.2.2.8 Placement at Dyke Marsh, the Environmental Assessment states: " it is feared that uncontained sediments at this location, which has exhibited large-scale erosion over the last decade, would be quickly eroded and increase the turbidity of the water downstream from the site. For these reasons, this alternative will not be considered further at this time." These are the same reasons not to consider depositing the spoil in the deep trough at Belvoir Peninsula. Current velocity at this site is zero when the tide is slack but it can be greater than one meter per second. There is no greater likelihood that the material deposited will remain where it is dropped than would be the case at Dyke Marsh. If it moves up or downstream filling in the channel at some other location, what has been accomplished? (1)

We have been told by Mr. Robert Blama that the disposal of this spoil will involve several hundred barge loads over several months indicating that several barge loads will be dumped on the site each day. Even if this material is very clean for which no evidence has been presented in the draft EA,since no studies have been done, it will still cloud the water with suspended sediment and alter the local water quality. (2)

Repeated dumping of dredge spoil may stir up phosphorus deposited in the sediments of the river channel possibly causing an algal bloom similar to one which occurred in 1983 in which *Microcystis aeruginosa* became so thick in Gunston Cove it was like green paint washing up on shore. Fairfax County has spent millions of dollars to construct a new sewage treatment plant to remove phosphorus and nitrogen from the effluent before it is returned to the Potomac. It certainly would not be "no significant impact" if the disposal of the dredged spoil were to cause phosphorus to be released from the sediments. (3)

The Corps hired a consulting firm to do a superficial study of the disposal site in Gunston Cove. This study took place in September 1990. There is no reference in the literature cited in the reference section to fifteen yearly reports on water quality, fish, phytoplankton, zooplankton, and benthic organisms at this site in Gunston Cove by R. Christian Jones and Don Kelso. This 16 year study which is ongoing is funded by Fairfax County and the reports are titled, "The Gunston Cove Report, 19.." (4)

The Environmental Assessment makes no mention of the fact that the Potomac River was designated a National Heritage River in 1998. There are numerous historic properties along the Potomac River as well as the Great Marsh on Mason Neck which is located in the Mason Neck National Wildlife Refuge which would likely be impacted negatively by the proposed dredging. Among the cumulative impacts, are increased shoreline erosion as well as visual and sound effects from shipping-associated shoreline construction. No mention is made of these impacts. The proposed dredging would constitute a major federal action, yet the Corps has not undertaken a serious analysis and weighing of benefits against negative impacts. (5)

Although NEPA requires the Corps to weigh the public benefits anticipated from the dredging against the negative impacts, the draft Environmental Assessment focuses only on the expected benefits. (6)

The trough proposed for placement of the dredged material may be a spawning area for American shad. While most eggs go downstream, eggs which sink to the bottom and are covered with silt or sand would be smothered. Yellow perch are not mentioned in the report. They spawn in the creeks which flow into Gunston Cove in March but must swim through the area where the dredged material will be deposited during February. Eggs of river herring are adhesive and will sink unless buoyed by currents. After 24 hours they lose their adhesiveness and are found in the water column and sediments. In 1965 when the Potomac River was last dredged, there were larger populations of spawning shad and river herring (alewife and blueback). Today these three species have declined to a few percent of the populations of the early 1970's in the Chesapeake and along the Atlantic seaboard. While the decline on the Atlantic coast is due to offshore fishing, the decline in the Chesapeake is due to conditions in the rivers. One of the conditions causing the decline in the Potomac may have been the dredging which occurred in 1965. There is no evidence or data to support the conclusion of the EA that fish populations that are disturbed by the disposal and by the dredging will be quickly re-established. Damage will also occur to the benthic community at this site. Studies should be done to see whether such communities are able to re-establish themselves. These studies should be done on a small scale, *before, not after*, the dredging and deposition of one million cubic yards of material is attempted. (7)

The current proposed dredging is termed a maintenance dredging because it is to the same specifications as in the past (200 ft. wide, 24 feet deep). The Environmental Assessment has not given (8)

serious or in depth consideration to any alternatives to the proposed action. In speaking with Mr. Blama, he said he had a narrow window of opportunity to accomplish the dredging this fall and winter during the 1999 fiscal year, and that he had no funding available to dispose of the dredge material on shore. If the Robinson Terminal, Dideon World Cruises and the City of Alexandria think that dredging the river will have such important economic benefits, then they should be asked to pay the cost of disposing of the material on land. Mr. Blama said there would be funding for disposing of the material which would be dredged for the Wilson Bridge supports.

Regardless of who pays for the proposed disposal, the analysis of the effects and impacts of this proposed dredge and fill project has been inadequate and does not meet the standards required by NEPA. I recommend that a full Environmental Impact Statement be performed which takes into consideration the cumulative impacts present and future of these proposed actions. We also recommend that the concerns raised by other federal agencies be addressed. The U.S. Fish and Wildlife Service has commented that the proposed spoils site does not have enough capacity to safely accommodate all of the proposed dredge material. National Marine Fisheries Service has expressed concern about the hydrodynamic stability of the spoil and its physical and chemical composition. Maryland Department of Natural Resources, Interstate Commission on the Potomac River Basin, Fairfax County, and George Mason University Professors R. Christian Jones and Donald Kelso have strenuously objected to the proposed disposal site. This action will seriously confound a set of biweekly water quality and biological trend data which stretches back for 16 years. These data have been used in several assessments of long-term trends in the Potomac River and will be increasingly crucial for assessing the long-term improvement in the Potomac River and Chesapeake Bay. (9)

Sincerely,

Ann Powel

Ann Powel, Secretary
Friends of Daniels Run Park

George Mason University

4400 University Drive
Fairfax, Virginia 22030-4444

(703) 993-1000
TDD: (703) 993-1002

July 14, 1999

Col. Bruce Berwick, P.E.
Acting Chief, Operations Division
U.S. Army Corps of Engineers
ATTN: CNAB-PL-E
P.O. Box 1715
Baltimore, MD 21203-1715

Dear Col. Berwick:

I have had a chance to review the Environmental Assessment produced for the Potomac River Dredging Project and find it highly deficient in a number of areas. I am particularly disappointed that it fails to address concerns that I expressed in my letter of October 14, 1998. The most critical of these relate to the degree to which sediments will be scoured from the placement site and the release of nutrients and toxics from the dredged material during removal and placement and during later scour. It fails to utilize all data sources available in the assessment. It also does not address in any substantive way effects on benthic organisms. (1)

I have talked to numerous individuals from the local scientific community as well as the Waterways Experiment Station and local Corps personnel. None of these people have any idea how long these sediments will remain in place. This project has been presented as one in which a "hole" is being filled. I submit to you that this is not a hole but an underwater channel through which water flows at high velocity (>1 m/sec) during incoming and outgoing tides. The reason why this is a deep area is the constant scouring of fine sediments that occurs at this location. I have been sampling this area for the past 16 years taking annual benthic samples in the channel at this precise location. Let me assure you that the sediment surface at this point is a mixture of shells and woody debris, not fine sediments. And there are plenty of fine sediments for deposition here; they just don't stay here because of scour. My guess is that scour will begin the day these dredged sediments are set in place and continue until a channel is produced which can handle the tidal flows which surge up and down the Potomac. At that point all your dredging work will have been wasted and the dredged sediments will have been dispersed, many of them back to where you took them from. I would liken this to filling the channel of a flowing stream. The Corps would not allow anyone to dump 900,000 cubic yards of material into middle of the channel of a major flowing river in the U.S. Why are they promoting it in a tidal system?

How many nutrients and toxics will be released into the water column or translocated via mobile sediment during the dredging and later scouring? The Environmental Assessment fails to address this important question. This is necessary to calculate the total cost of dredging. Local governments are being required to spend millions of dollars to upgrade sewage treatment to (2)

remove nutrients. It seems as though the cost of nutrient release during dredging can be calculated based on the amount spent to remove a given amount of nutrients from sewage. This must be included as a cost. The same applies to toxics and suspended sediments.

The EA fails to utilize one of the richest data sources available on this site: the 16-year sampling record from the Fairfax Co./GMU Gunston Cove Study which has monitored water quality, plankton, benthos, and fish communities in the river mainstem at the site which is planned for disposal. This comprehensive dataset includes measurement of these variables on a biweekly to monthly basis (except benthos) from March-December for 1984 to present. Benthos have been monitored on an annual basis. Our 1997 annual report was requested by and sent to the Corps, but was not mentioned in the EA. Instead the EA relied entirely on very spotty data such as Kasul et al. 1990 in which fish were sampled on only one date at the proposed disposal site. (3)

As for benthic communities, the report presents very perfunctory information about sampling which the Corps conducted in August-October 1992 (Section 4.6.2). As far as I can tell there is no documented report of this research other than the paragraph presented here. Several of the conclusions reached do not follow from the data presented. For example, two distinct communities are said to exist: "deep hole communities and channel communities". I don't understand the difference. The "deep hole" is the channel. Again, the phrase "deep hole" is a misnomer. The "deep hole" is actually a trough, the channel of the tidal Potomac River. So, what are the two communities? Later there is a comment on anoxia/hypoxia. However, we have never observed anoxia or serious hypoxia in the last 16 years in the tidal freshwater Potomac. (4)

There is a good source of long-term data on benthos at the proposed dredge site: the Fairfax Co./GMU Gunston Cove Study. What that reveals is a diverse community of benthos at the proposed dump site, much more diverse than exists in the shallower sites we have sampled. Our channel station (Station 9) located in the deep trough being proposed for dredge disposal maintains a diverse community of nine different taxa including chironomids, amphipods, isopods, odonates, clams, snails, leeches, flatworms, and oligochaetes (see attached figure). This is much greater diversity than found at the shallow water sites (Stations 7 and 10) in Gunston Cove. Benthos is a major food source for fish in the tidal Potomac and this channel area proposed for spoil disposal is one of the richest benthic habitats in the river. I would assert that this diversity is directly tied to the coarse and complex substrates (shells and woody debris) now available in the channel area which would be blanketed by the dredge spoil. The cost of removing this food source was not considered in the EA.

Finally, I find it disturbing that all alternatives including No Action are dismissed and not studied in detail, merely on the grounds that they have costs associated with them. If that is the criteria, then the proposed course of action should also be dismissed since it has costs associated with it many of which are not included in this analysis, as I have mentioned above. The landfill placement is dismissed because it costs $8 million, but the alleged benefits are $25 million. And no attempt has been made to address many of the costs of the proposed action. For example what is the effect of the proposed disposal on the $24 million recreational fishery in the Potomac River and the several hundred million dollar Potomac River wastewater improvement initiative? (5)

In summary, I find this EA to be woefully inadequate and therefore any finding of No Significant Impact to be highly questionable. No alternatives were considered in detail. Therefore, we have no way of deciding if the proposed course of action is the "best" alternative. This EA must be totally redone or a full EIS done to establish the appropriate course of action. Anything less is a disservice to the taxpayers and to the Potomac River.

Sincerely,

R. Christian Jones
Professor of Biology

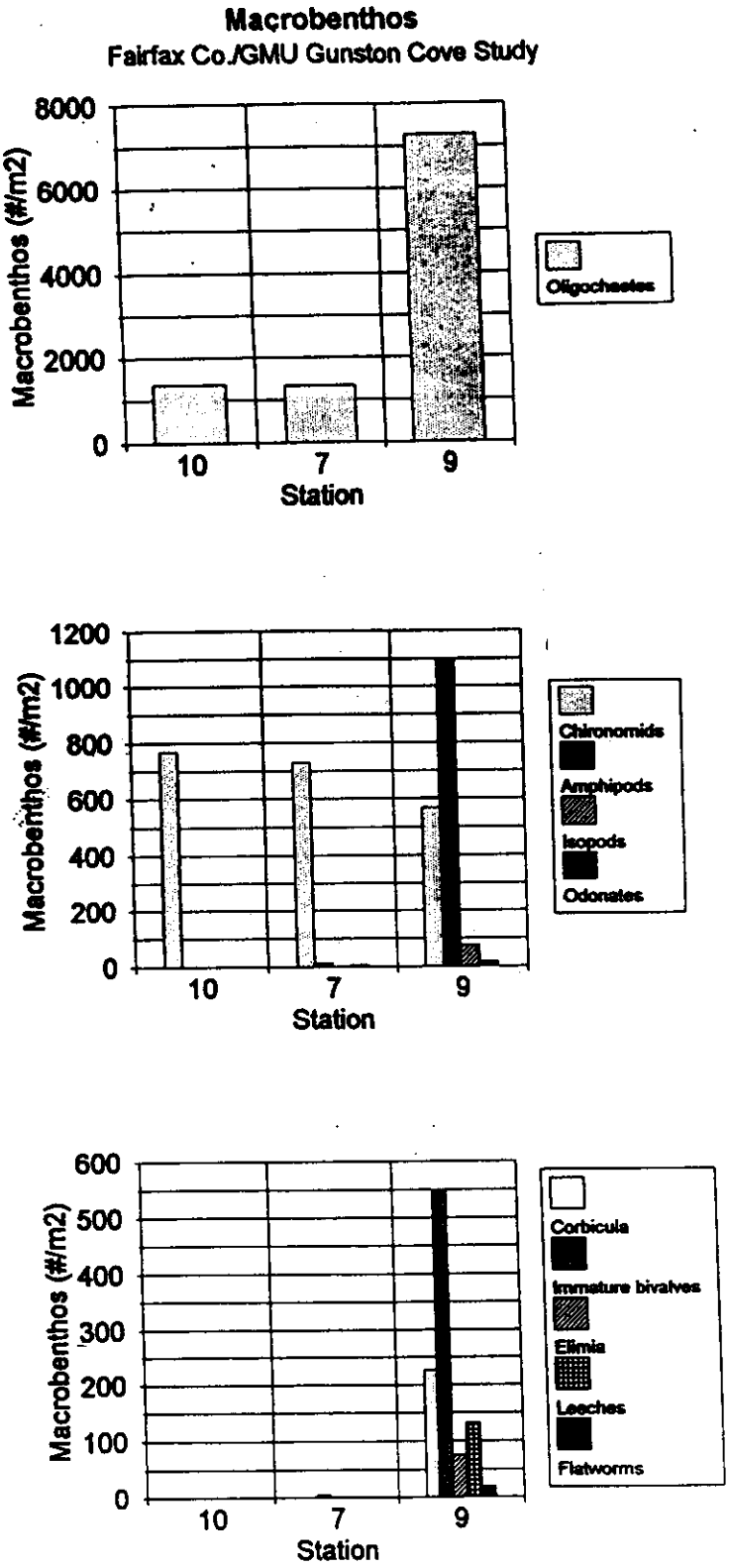


Figure 30. Macrobenthos (#/m^2). (top) Mean density of oligochaetes by station. (middle) Mean density of arthropods by station. (bottom) Mean density of other taxa by station.